

S T A T E O F M I C H I G A N
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter, on the Commission's own motion,)	
to address out-of-service arc wire in the)	Case No. U-18484
city of Detroit.)	
_____)	

At the December 7, 2017 meeting of the Michigan Public Service Commission in Lansing,
Michigan.

PRESENT: Hon. Sally A. Talberg, Chairman
Hon. Norman J. Saari, Commissioner
Hon. Rachael A. Eubanks, Commissioner

ORDER

On December 7, 2017, the Commission issued an order in Case No. U-18172 (December 7 order) closing the docket regarding an investigation into an accidental electrocution that occurred in Detroit on September 7, 2016. As part of that docket, the Commission ended the investigation into the electrocution, and ordered that a comprehensive effort be undertaken to avoid similar incidents and improve safety within the city of Detroit by removing potentially hazardous, out-of-service arc wire.¹

¹ Arc power lines, also called arc wires, arc circuit wires, or arc circuit conductors, are specific wires that were formerly used to supply electricity to arc-type street lamps. Arc lamps are considered obsolete. In the city of Detroit, a new lighting system has been installed; but, numerous arc wires remain attached to utility poles.

Background

On September 23, 2016, the Commission issued an order in Case No. U-18172 (September 23 order) directing DTE Electric Company (DTE Electric) to commence an investigation into the accidental electrocution that occurred in Detroit on September 7, 2016, and develop a plan for the utility to avoid similar situations throughout Detroit. DTE Electric was to implement the plan, and within 30 days of its implementation, file a report that explained any material deviations from the plan. *See*, September 23 order, ordering paragraphs.

DTE Electric timely filed the requisite reports, which the Commission Staff (Staff) reviewed. In its annual report, filed on September 1, 2017, DTE Electric relates that the utility has participated, in partnership with the City of Detroit Public Lighting Department (DPLD),² in two pilot programs involving the removal of arc wire. Pilot A began in November 2016, ended in February 2017, and involved two circuits: Ludden 922 and Walton 692. With a DTE Electric supervisor observing the work, DPLD crews removed DPLD primary and DPLD arc circuit wire on poles where DTE Electric primary wire is located, replacing and rebalancing cross-arms, as needed. The Ludden circuit was fairly accessible; but, access to the Walton circuit required heavy vegetation trimming. During this joint pilot program, crews removed 5,042 feet of out-of-service arc wire from the Ludden circuit and 6,480 feet of out-of-service arc wire from the Walton circuit. Pilot B began in May 2017, ended in June 2017, and included only the area previously served by the DPLD's Montrose substation. In areas where vegetation trimming was not needed, crews removed 75,600 feet of out-of-service arc wire over a three-week period. Areas where vegetation

² The City of Detroit Public Lighting Department (DPLD) was responsible to provide electricity to many Detroit municipal buildings and schools, in addition to other venues such as the Joe Louis Arena. The DPLD also provided Detroit's street lighting. In 2013, DTE Electric began assuming the DPLD's customers because the DPLD planned to cease engaging in electric distribution. *See*, the July 11, 2013 order in Case No. U-17427.

trimming was needed took longer; and in those areas, crews removed 59,850 feet of out-of-service arc wire.

Based on the cost of these two pilots, DTE Electric estimates that the removal of all out-of-service arc wire, with rebalancing and possible replacement of cross-arms, will cost \$95 to \$120 million. DTE Electric's September 1, 2017 annual report in Case No. U-18172, pp. 2-3.

Discussion

The Commission is responsible to promote programs to ensure the safe delivery of electricity to the residents of Michigan. While a good immediate step, DTE Electric's current partnership with the DPLD and its "Make Safe" process improvement measures are short-term and reactive, and do not address the long-term problem of out-of-service arc wire in Detroit, as revealed by the investigation in Case No. U-18172. A full resolution would be the eventual removal and/or isolation of all applicable arc wire, a daunting task because the complex street lighting system spans the entire city of Detroit and some outlying areas.

There are a number of impediments to achieving that goal. It is difficult to ascertain where all the out-of-service arc wire is located because the arc wire is no longer in use and there are varying estimates as to the amount remaining. There is also arc wire in areas where there are no DTE Electric facilities. In addition, for a variety of reasons, the system was poorly maintained and documented when it was in service. The Staff participated in a field tour of an area where there is out-of-service arc wire, and found widespread areas of overgrown brush, small saplings, and abandoned buildings. In those areas, the Staff recommends that, for the safety and accessibility of electric crews, the vegetation must be cleared and hazards addressed prior to working on the lines. As such, progress towards arc wire removal is likely to vary based on individual locations.

Another issue that may affect plans to remove the out-of-service arc wire is the planned upgrade to DTE Electric's distribution line systems that is expected to take place over the next 5 to 30 years. *See*, the January 31, 2017 order in Case No. U-18014. In addition, in its pending rate case (Case No. U-18255), DTE Electric has requested cost recovery for a fault identification system for the purpose of quickly identifying and addressing downed wires on the utility's 4.8 kilovolt ungrounded distribution system. It may not be cost effective to spend millions of dollars removing arc wire and rebalancing cross-arms, only to revisit the area a few years later to install upgraded electric equipment and utility poles, especially when the fault system may alleviate a portion of the downed wire problem. This assumes the current "Make Safe" procedures that DTE Electric and the DPLD are using continue to be effective in eliminating specific safety hazards. Should these procedures not produce the desired results, the Commission will be required to revisit this issue. Accordingly, the Commission urges DTE Electric and the DPLD to continue their efforts until a long-term solution is implemented.

Initial Assessment

In view of these challenges, a comprehensive, well-planned, and long-term approach is called for. The Commission requests that DTE Electric collaborate with outside resources with expertise in distribution systems to do a full overlay of out-of-service arc wire with coexisting DPLD and DTE Electric infrastructure. The purpose of this initial assessment is to identify the scope of the issue, and to address, at a minimum, the following: 1) How much of the arc wire remains; 2) The location and ownership of each section of the remaining arc wire, along with the location and ownership of each distribution pole to which it is attached; 3) Areas where the arc wire can be easily accessed and removed; and 4) Areas that require significant undertaking to access due to overgrown vegetation, outbuildings, fencing, debris, etc., and a categorical breakdown of such

barriers. Once the initial assessment is completed, the Commission directs DTE Electric to develop a detailed report of the results, including cost projections, the priority of work to be completed, and the potential for coordination with related activities, such as general distribution system modernization efforts. Safety must continue to be a focus. If particularly hazardous areas are identified, those areas should be prioritized as part of the plan. It is expected that creative solutions to fund the project will be explored with the Staff and included in the report.

Accordingly, the Commission directs DTE Electric to work with the Staff, the DPLD, and any other relevant entity, to accomplish a long-term, comprehensive plan to address out-of-service arc wire in Detroit, as discussed above. In addition, the Commission directs DTE Electric and the Staff to file reports on the progress of the project, with the first DTE Electric report due March 30, 2018, and the Staff's report due May 15, 2018. The reports are to include a full accounting of the results of the overlay, details of pilot projects, and other activities related to out-of-service arc wire.

THEREFORE, IT IS ORDERED that DTE Electric Company shall work with the Commission Staff, the City of Detroit Public Lighting Department, and other relevant entities to accomplish a comprehensive, well-planned, and long-term approach to address the out-of-service arc wire issue, including preparation of an initial assessment detailing the full mileage and locations of the wire. DTE Electric Company shall file a report providing a full accounting of the results of the overlay and all details related to out-of-service arc wire no later than March 30, 2018.

The Commission reserves jurisdiction and may issue further orders as necessary.

Any party desiring to appeal this order must do so by the filing of a claim of appeal in the Michigan Court of Appeals within 30 days of the issuance of this order, under MCL 462.26. To comply with the Michigan Rules of Court's requirement to notify the Commission of an appeal, appellants shall send required notices to both the Commission's Executive Secretary and to the Commission's Legal Counsel. Electronic notifications should be sent to the Executive Secretary at mpscdockets@michigan.gov and to the Michigan Department of the Attorney General - Public Service Division at pungp1@michigan.gov. In lieu of electronic submissions, paper copies of such notifications may be sent to the Executive Secretary and the Attorney General - Public Service Division at 7109 W. Saginaw Hwy., Lansing, MI 48917.

MICHIGAN PUBLIC SERVICE COMMISSION

Sally A. Talberg, Chairman

Norman J. Saari, Commissioner

Rachael A. Eubanks, Commissioner

By its action of December 7, 2017.

Kavita Kale, Executive Secretary